

REMARKS

Claims 1-18 and 20-55 were presented for examination and were pending in this application. In an Official Action dated July 21, 2003, claims 1-18 and 20-55 were rejected. Applicant herein amends claim 1. Applicant herein cancels, without prejudice, claim 20. Applicant now requests reconsideration and allowance of claims 1-18 and 21-55.

Applicant thanks Examiner for the consideration of Applicant's information disclosure statement dated May 5, 2003. Further, Applicant thanks Examiner for examination of the claims pending in this application and addresses Examiner's comments below.

Claim Rejections – 35 U.S.C. § 112

Claims 31-37 and 54 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. In particular, Examiner asserts that the claims recite "a second presentation element coupled to the radio frequency communication unit and configured to provide a second control signal to the host system," which Examiner believes is not sufficiently described in the specification. Applicant respectfully traverses this rejection.

Applicant respectfully submits that the specification and figures sufficiently describe the "second presentation element coupled to the radio frequency communication unit and configured to provide a second control signal to the host system" in such a way as to enable one skilled in the art to make or use the invention. For example, Figure 8 shows a state diagram illustration of one embodiment of the present invention with various modes of operation depending on the features available in the universal presentation device. The modes shown in Figure 8 include pen mode 815, mouse/touch pad mode, laser mode 840, gyro-scope mode 850, and other mode 870, which are described in corresponding sections of the

specification, for example, at pages 36-37. In particular, with respect to the "other mode 870," the specification describes that:

other modes 870 ... can encompass other technologies applicable to the universal presentation device. For example, the other modes 870 may include voice activated position detection where the user voice may be used to navigate on a computer display. In this embodiment, the user selects 875 a position by dictating that position into a microphone on the universal presentation device. This positional information is translated into a communication signal and is relayed to a host computer, for example, by a radio-frequency or microwave frequency transmission.

(Specification: p. 37, lines 12-18).

Therefore, the specification describes "a second presentation element coupled to the radio frequency communication unit and configured to provide a second control signal to the host system" as, for example, a microphone capable of relaying positional information to a host by radio-frequency transmission, i.e., coupled to the radio frequency communication unit. Further, it should be noted that the above description is by way of example only. The specification makes clear that, in addition to a writing instrument, a mouse/track ball instrument, a gyroscope assembly, and a laser pointer, other technologies are encompassed to provide further "other modes 870" that result in some action 890 taking place, for example, on a host computer and conveyed, for example, by radio-frequency transmission.

Thus, for at least this reason, Applicant submits that independent claim 31 and its dependent claims 32-37 and 54 meet the requirements of 35 U.S.C. § 112, first paragraph and respectfully requests their prompt allowance.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 20, 26, 28, 38-46, 48-53 and 55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,417,840 to Daniels ("Daniels"), in view of U.S. Patent No. 6,275,174 to Stork ("Stork '174"). Applicant amends claim 1 and cancels claim 20 herein. With respect to the remaining claims, applicant respectfully traverses the rejections.

Applicant amends claim 1 herein. As amended, claim 1 recites:

A universal presentation device comprising:
an electronic control device communicatively coupled with a computer system to provide a control mechanism for the computer system;
a radio-frequency transmitter configured to communicatively couple the electronic control device with the computer system;
and
a coherent light source configured to provide a coherent light beam for pointing the coherent light beam on an object,
wherein the universal presentation device is configurable for simultaneously operating the electronic control device and the coherent light source, which are dimensioned to form a substantially unitary device when at least one of the electronic control device or the coherent light source is operation.

Similarly, claim 49 recites:

In a universal presentation device, a method comprising the steps of:
communicating with a computer system;
receiving a user input via an electronic control device;
controlling the computer system in response to the user input;
providing a coherent light source for generating a coherent light beam to reflect off an object;
housing the electronic control device and the coherent light source in a unitary device;
and

configuring the universal presentation device for simultaneously controlling the computer system and providing the coherent light source.

The universal presentation device of claim 1 beneficially includes an electronic control device that provides a control mechanism for a computer system by way of radio-frequency transmissions. Further, both the universal presentation device of claim 1 and the method of claim 49 provide the simultaneous operation of an electronic control device and a coherent light source, such as, for example, a laser pointer.

These features provide several advantages over conventional presentation devices. For example, a user of the universal presentation device may use the coherent light source to point to a portion of a display projected from a computer system while simultaneously controlling the presentation or other software running in the computer system. For example, a presenter may advance slides showing a progressive change on one section of the slides while simultaneously pointing to the particular section with the coherent light source to attract the audience's attention. Further, by including a radio-frequency transmitter, the universal presentation device is capable of, for example, controlling presentation and other software without being tethered to the computer system by wires and without the limitations in range and line of sight positioning required by other cordless technologies, such as, for example, infrared (IR).

Daniels shows "a communication device capable of selectively communicating control signals to a computer and transmitting a narrow beam of light" (Daniels: Abstract). "The communication device is configured like a conventional cordless input device for a computer and includes a transmission port in a front surface which is adapted to transmit wireless control signals to a computer as well as a beam of light for use in highlighting points of a

presentation" (Daniels: col. 1, lines 33-38). However, unlike the claimed universal presentation device, the cordless mouse in Daniels allows only the laser or the mouse to be functional at any given time, but not both (Daniels: col. 4 lines 3-7 and 12-15). Hence, for at least this reason, Daniels fails to disclose all the limitations in claim 1.

Similarly, Stork '174 fails to disclose all the limitations of claim 1. Stork '174 shows "an input device for remote control of simple and combined recording and reproducing systems" (Stork: Abstract). The input device in Stork '174 includes a laser pointer.

The laser pointer (Function L) is on with the knob pressed, off in the rest position of the knob. The laser pointer knob L is directly connected to laser unit. The design can be such that it either sends a signal like Function 5, 6, or 7 or it is not coupled to the system and only switches the laser unit (Stork: col. 7, lines 16-22).

Stork '174 further provides two embodiments of the input device, a first embodiment with only element H (Fig. 1a) and a second embodiment that includes function elements (knobs) 5, 6, 7, and L (Fig. 2a). Knob H produces 4 operating functions, right rotation: Function 3, left rotation: Function 4, pressing: Function 1 and pulling: Function 2. With respect to the second embodiment, Stork '174 states that in the state diagram of Fig. 3, "the input alphabet pertain the symbols {1, 2, 3, 4, 5, 6, 7, L} though "L" is not evaluated by the system in this variant thus remains ignored" (Stork: col. 6, lines 7-15). That is, the input alphabet in Stork '174 does not include simultaneous input from function elements, i.e., 1 and 5, 1 and 6, 1 and L, etc. Hence, nowhere in Stork '174 is there a description of a simultaneous operation of an electronic control device and a coherent light source.

Further, assuming *arguendo* that such simultaneous operation is somehow disclosed in Stork '174, there is no motivation to combine the Stork '174 input device features with the Daniels cordless mouse. Rather, Stork '174 teaches away from such a combination. For

example, Stork '174 points out that using conventional mouse devices present problems because

[t]he mouse (trackball, joystick) requires precise control on the target by the presenter, in two axes, which the presence of the mouse arrow presumes and diverts the attention of the presenter from contact with the audience. ...

[Conventional devices] frequently lead to errors in operation in a presentation, which can make the audience doubt the quality of the presentation as well as the qualifications of the presenter. It follows from this that the combination of input apparatus and control software with these conventional technical means is not good enough for the special requirements of a presentation situation.

(Stork: col. 2, line 57, to col. 3, line 5). Further, the advantages provided by the Stork '174 device are based on simplifying the operation of conventional pointing devices by removing unnecessary functions. For example, Stork '174 describes these advantages as follows:

the input device is set up with operating software in a form which facilitates the operation of an electronic presentation. This software produces the linking of the individual pages or units of the presentation and suitably converts the control commands sent from the input device. No mouse pointer is required.

(Stork: col. 3, line 66, to col. 4, line 2).

As discussed above, "the communication device [of Daniels] is configured like a conventional cordless input device for a computer" (Daniels, col. 1, lines 33-34), precisely the type of device Stork '174 describes as making the audience doubt the qualifications of the presenter (See Stork: col. 2 line 66 to col. 3, line 2). Therefore, modifying the device in Daniels, i.e., a dual mode conventional mouse and laser pointer, with the teachings of Stork '174, input device that does not operate as a conventional mouse, as suggested by Examiner would be inapposite to the principles of operation of the references (see M.P.E.P. § 2143.01).

Hence, neither Daniels alone nor Stork '174 alone renders the claimed inventions of claims 1 and 49 unpatentable. Further, the combination of these two references is improper because there is no motivation to combine. Moreover, the Stork '174 reference teaches away from such combination. Thus, for at least these reasons, Applicant submits that independent claims 1 and 49 and dependent claims 26, 28, 38-46, 48, 50-53 and 55 are patentable over the cited references and respectfully request their allowance.

Claims 2-5, 7 and 9-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniels and Stork '174. Applicant respectfully traverses this rejection. As previously discussed, the combination of Daniels and Stork '174 is improper, and hence, not a basis for rejection under 35 U.S.C. § 103(a). Therefore, Applicant submits that claims 2-5, 7 and 9-10 are patentable over the cited references and respectfully requests prompt allowance.

Claims 6 and 47 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniels and Stork '174 and in further view of U.S. Patent No. 6,133,907 to Liu ("Liu"). Applicant respectfully traverses this rejection. As previously discussed, the combination of Daniels and Stork '174 is improper, and hence, not a basis for rejection under 35 U.S.C. § 103(a). Further, Liu simply discloses "a pointing device having a motion picture projected therefrom" and does not address the deficiencies of Daniels or Stork '174 either alone or in combination. Therefore, Applicant submits that claims 6 and 47 are patentable over the cited references and respectfully requests prompt allowance.

Claims 16-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniels and Stork '174 and in further view of U.S. Patent No. 6,545,664 to Kim ("Kim"). Applicant respectfully traverses this rejection. Applicant notes that the cited Kim reference has a filing date of Sep. 29, 2000, which post-dates the filing date of Applicant's application

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of August 2, 2000. Although the Kim reference relies on a priority date of Sep. 18, 1998 as a continuation-in-part of a now abandoned application (Serial No. 09/157,030), Applicant cannot discern from the reference provided whether the subject matter relied on by Examiner as the basis for this rejection is entitled to such earlier filing date. Hence, Applicant respectfully requests clarification as to this issue. In addition, as previously discussed, the combination of Daniels and Stork '174 is improper, and hence, not a basis for rejection under 35 U.S.C. § 103(a). Further, Kim simply discloses a "head operated computer pointing device" and does not address the deficiencies of Daniels or Storke '174 either alone or in combination. Therefore, applicant submits that claims 16-17 are patentable over the cited references and respectfully requests prompt allowance.

Claims 8, 11-15, 18, 19 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniels and Stork '174 in further view of U.S. Patent No. 6,181,329 B1 to Stork et al. ("Stork '329"). Applicant notes that claim 19 has been previously cancelled. Applicant respectfully traverses this rejection. As previously discussed, the combination of Daniels and Stork '174 is improper, and hence, not a basis for rejection under 35 U.S.C. § 103(a). Further, Stork '329 simply discloses "a method and apparatus for tracking a hand-held writing instrument with multiple sensors that are calibrated by placing the writing instrument in predetermined positions with respect to the writing surface." Stork '329 does not address the deficiencies of Daniels or Storke '174 either alone or in combination. Therefore, applicant submits that claims 8, 11-15, 18, and 21 are patentable over the cited references and respectfully requests prompt allowance.

Claims 22-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniels and Stork '174 in further view of U.S. Patent No. 5,952,997 to Hu ("Hu"). Applicant

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respectfully traverses this rejection. As previously discussed, the combination of Daniels and Stork '174 is improper, and hence, not a basis for rejection under 35 U.S.C. § 103(a). Further, Hu simply discloses an "encoder wheel arrangement" and does not address the deficiencies of Daniels or Storke '174 either alone or in combination. Therefore, Applicant submits that claims 22-25 are patentable over the cited references and respectfully requests prompt allowance.

Claims 29 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniels and Stork '174 in further view of U.S. Patent No. 5,532,753 to Buchner et al. ("Buchner"). Applicant respectfully traverses this rejection. As previously discussed, the combination of Daniels and Stork '174 is improper, and hence, not a basis for rejection under 35 U.S.C. § 103(a). Further, Buchener simply discloses "a remote-controlled on-screen audio/video receiver control apparatus" and does not address the deficiencies of Daniels or Storke '174 either alone or in combination. Therefore, Applicant submits that claims 8, 11-15, 18, and 21 are patentable over the cited references and respectfully requests prompt allowance.

Conclusion

In sum, Applicant respectfully submits that claims 1-18 and 21-55, as presented herein, are patentably distinguishable over the cited reference. Therefore, Applicant requests reconsideration and allowance of these claims.

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In addition, Applicant respectfully invites Examiner to contact Applicant's representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

RESPECTFULLY SUBMITTED,
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